AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) ~~A microcapsule comprised of~~ A method of controlling the release of a plurality of immiscible liquids comprising the steps of:

providing one or more microcapsules wherein the one or more microcapsules comprise:

~~a~~ the plurality of ~~internal,~~ immiscible liquids ~~phases~~;

a flexible polymer outer membrane encapsulating the liquids ~~phases~~, the polymer outer membrane having a melting temperature; and

one or more energy absorbing trigger particles contained in ~~an~~ at least one of the ~~internal~~ liquids ~~phase~~ in contact with the polymer outer membrane, wherein the one or more energy absorbing trigger particles are co-encapsulated with the ~~plurality of internal, immiscible~~ liquids ~~phases~~ by the flexible polymer outer membrane, wherein the one or more energy absorbing trigger particles sediment in the ~~internal~~ at least one of the liquids ~~phase~~ in contact with the polymer outer membrane, wherein at least one of the one or more energy absorbing trigger particles are in contact with the polymer outer membrane, wherein the one or more energy absorbing trigger particles have a higher specific absorption rate for ~~magnetic,~~ radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer outer membrane, and wherein the temperature of the one or more energy absorbing trigger particles is increased by absorbing the energy to melt at least a portion of the polymer outer membrane;

delivering the one or more microcapsules in tissue; and

applying the radiofrequency, microwave, or ultrasound energy to the one or more microcapsules such that at least one of the one or more energy absorbing trigger particles in at least one of the one or more microcapsules increases in temperature by absorbing the energy thereby melting the respective polymer outer membrane of the at least one of the one or more microcapsules and thereby releasing the encapsulated immiscible liquids.

2-5. (Cancelled)

6. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the polymer outer membrane comprises polyvinyl alcohol and the one or more energy absorbing trigger particles comprises aluminum powder.

7-29. (Cancelled)

30. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the microcapsule has a diameter of from about 1 to about 500 microns.

31. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the microcapsule has a diameter of from about 300 to about 500 microns.

32. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the microcapsule has a diameter of from about 50 to about 300 microns.

33. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the microcapsule has a diameter of from about 30 to about 50 microns.

34. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the microcapsule has a diameter of from about 20 to about 30 microns.

35. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the microcapsule has a diameter of from about 1 to about 20 microns.

36. (Cancelled)

37. (Currently amended) The ~~microcapsule~~ method of claim 77, wherein the radiocontrast media is a halogenated oil, wherein the one or more energy absorbing trigger particles comprises aluminum powder, and wherein the flexible polymer outer membrane comprises polymer alcohol.

38. (Currently amended) The ~~microcapsule~~ method of claim 37 wherein the halogenated oil is poppy seed oil, cotton seed oil, soybean oil, safflower oil, corn oil, sunflower seed oil, sesame seed oil, or canola oil.

39. (Currently amended) The ~~microcapsule~~ method of claim 37, wherein the radiocontrast media is iodinated poppy seed oil.

40. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the one or more microcapsules are contained in a pharmaceutically acceptable solution.

41-42. (Cancelled)

43. (Withdrawn) The composition of claim 78, wherein said first portion contains a different drug than said second portion.

44. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting

temperature, and one or more energy absorbing components selected from the group consisting of amorphous carbon, graphite, aluminum powder, acetylene black, sodium amyl alcohol, sorbitan monoleate, 2% sorbitan monooleate/20 moles ethylene oxide, and paraffin oil, in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the internal component and to melt at least a portion of the polymer outer membrane and to release the drug.

45-48. (Cancelled)

49. (Withdrawn) The method of claim 79, wherein the electromagnetic field is an electromagnetic field with a frequency of from about 20 to about 500 KHz.

50. (Withdrawn) The method of claim 79, wherein the electromagnetic field is an electromagnetic field with a frequency of from about 85 to about 100 KHz.

51-54. (Cancelled)

55. (Withdrawn) The method of claim 81, wherein the microcapsules are administered to a subject and detected at a target site by radiography, prior to heating the internal component.

56. (Withdrawn) The method of claim 44, wherein the microcapsules are administered to a subject intraarterially, intravenously, intraperitoneally, directly into a tissue, or directly into a tumor.

57-72. (Cancelled)

73. (Currently amended) ~~A microcapsule comprised of~~ A method of controlling the release of one or more immiscible liquids comprising the steps of:

providing one or more microcapsules comprised of:

the one or more ~~internal,~~ immiscible liquids ~~phases~~;

a flexible polymer outer membrane encapsulating the liquids ~~phases~~, the polymer outer membrane having a melting temperature; and

a spheroid of one or more energy absorbing trigger particles in at least one of the one or more ~~an internal~~ liquids ~~phase~~ in contact with the polymer outer membrane, wherein the one or more energy absorbing trigger particles sediment in the ~~internal~~ at least one of the one or more liquids ~~phase~~ in contact with the polymer outer membrane, and wherein at least one of the one or more energy absorbing trigger particles is in contact with the polymer outer membrane, wherein the spheroid has a higher specific absorption rate for ultrasound energy than the specific absorption rate of the polymer outer membrane, and wherein the temperature of the spheroid is increased by absorbing the energy to melt at least a portion of the polymer outer membrane;

delivering the one or more microcapsules in tissue; and

applying ultrasound energy to the one or more microcapsules such that at least one of the one or more energy absorbing trigger particles in at least one of the one or more microcapsules increases in temperature by absorbing the ultrasound energy thereby melting the respective

polymer outer membrane of the at least one of the one or more microcapsules and thereby releasing the encapsulated immiscible liquids.

74. (Currently amended) ~~A microcapsule comprised of~~ A method of controlling the release of one or more immiscible liquid phases comprising the steps of:

providing one or more microcapsules comprised of:

the one or more ~~internal,~~ immiscible liquid phases, wherein the liquid phases are comprised of at least one ~~internal~~ aqueous phase and at least one ~~internal~~ hydrocarbon phase;

a flexible polymer outer membrane encapsulating the one or more liquid phases, the polymer outer membrane having a melting temperature; and

one or more energy absorbing trigger particles in ~~an internal~~ at least one of the one or more liquid phases in contact with the polymer outer membrane, wherein the one or more energy absorbing trigger particles sediment in the ~~internal~~ at least one of the one or more liquid phases in contact with the polymer outer membrane, and wherein at least one of the one or more energy absorbing trigger particles is in contact with the polymer outer membrane, wherein the one or more energy absorbing trigger particles have a higher specific absorption rate for ~~magnetic,~~ radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer membrane, and wherein the temperature of the one or more energy absorbing components is increased by absorbing the energy to melt at least a portion of the polymer outer membrane;

delivering the one or more microcapsules in tissue; and

applying the radiofrequency, microwave, or ultrasound energy to the one or more microcapsules such that at least one of the one or more energy absorbing trigger particles in at least one of the one or more microcapsules increases in temperature by absorbing the energy

thereby melting the respective polymer outer membrane of the at least one of the one or more microcapsules and thereby releasing the encapsulated immiscible liquids.

75. (Withdrawn) A microcapsule consisting of:

one or more internal, immiscible liquid phases;

a flexible polymer outer membrane encapsulating the liquid phases, the polymer outer membrane having a melting temperature; and

one or more energy absorbing trigger particles selected from the group consisting of amorphous carbon, graphite, and aluminum powder, in an internal liquid phase in contact with the outer membrane; and

a drug or drug precursor in the internal liquid phase in contact with the outer membrane,

wherein the one or more energy absorbing trigger particles sediment in the internal liquid phase in contact with the polymer outer membrane,

wherein at least one of the one or more energy absorbing trigger particles is in contact with the polymer outer membrane,

wherein the one or more energy absorbing trigger particles have a higher specific absorption rate for magnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer outer membrane, and

wherein the temperature of the one or more energy absorbing trigger particles is increased by absorbing said energy to melt at least a portion of the polymer outer membrane.

76. (Withdrawn) A microcapsule consisting of:

one or more internal, immiscible liquid phases;

a flexible polymer outer membrane encapsulating the liquid phase, the polymer outer membrane having a melting temperature; and

one or more energy absorbing trigger particles selected from the group consisting of amorphous carbon, graphite, and aluminum powder, contained in a first internal liquid phase;

a drug precursor in a the first internal liquid phase; and

an activator of said drug precursor in a second internal liquid phase immiscible with the first internal liquid phase,

wherein the first internal liquid phases is in contact with the outer membrane,

wherein the one or more energy absorbing trigger particles sediment in the first internal liquid phase in contact with the polymer outer membrane,

wherein at least one of the one or more energy absorbing trigger particles is in contact with the polymer outer membrane,

wherein said one or more energy absorbing trigger particles have a higher specific absorption rate for magnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer outer membrane, and

wherein the temperature of said one or more energy absorbing trigger particles is increased by absorbing said energy to melt at least a portion of the polymer outer membrane.

77. (Currently amended) ~~A microcapsule comprised of~~ A method of controlling the release of one or more immiscible liquids comprising the steps of:

providing one or more microcapsules wherein the one or more microcapsules comprise:

one or more ~~internal,~~ immiscible liquids ~~phases~~;

a flexible polymer outer membrane encapsulating the liquids ~~phases~~, the polymer outer membrane having a melting temperature; and

one or more energy absorbing trigger particles containing a radiocontrast media, wherein the one or more energy absorbing trigger particles are contained in ~~an internal~~ at least one of the one or more liquids ~~phase~~ in contact with the polymer outer membrane,

wherein the one or more energy absorbing trigger particles sediment in the ~~internal~~ at least one of the one or more liquids ~~phase~~ in contact with the polymer outer membrane, and wherein at least one of the one or more energy absorbing trigger particles is in contact with the polymer outer membrane, wherein the one or more energy absorbing trigger particles have a higher specific absorption rate for ~~magnetic,~~ radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer outer membrane, and wherein the temperature of the one or more energy absorbing trigger particles is increased by absorbing the energy to melt at least a portion of the polymer outer membrane;

delivering the one or more microcapsules in tissue; and

applying the radiofrequency, microwave, or ultrasound energy to the one or more microcapsules such that at least one of the one or more energy absorbing trigger particles in at least one of the one or more microcapsules increases in temperature by absorbing the energy thereby melting the respective polymer outer membrane of the at least one of the one or more microcapsules and thereby releasing the encapsulated one or more immiscible liquids.

78. (Cancelled)

79. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and one or more energy absorbing components in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component is a magnetic particle and the energy is a magnetic field, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the internal component and to melt at least a portion of the polymer outer membrane and to release the drug.

80. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and one or more energy absorbing components in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component consists of a spheroid within the microcapsule, and wherein the energy is ultrasound, wherein the energy absorbing component has a higher specific absorption rate for ultrasound energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the internal component and to melt at least a portion of the polymer outer membrane and to release the drug.

81. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and one or more energy absorbing components in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component is a magnetic particle and the energy is a magnetic field, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases, wherein the

microcapsules contain a drug precursor in a first internal liquid phase and an activator of the drug precursor in a second internal liquid phase immiscible with the first internal liquid phase;

exposing the microcapsules to an energy source effective to mix the immiscible internal liquid phases and increase the kinetics of activation of the drug precursor prior to heating the magnetic particles;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the internal component and to melt at least a portion of the polymer outer membrane and to release the drug.

82. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and one or more energy absorbing components selected from the group consisting of amorphous carbon, graphite, aluminum powder, acetylene black, sodium amyl alcohol, sorbitan monoleate, 2% sorbitan monooleate/20 moles ethylene oxide, and paraffin oil, in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases, and wherein the microcapsules contain a radiocontrast medium;

wherein the microcapsules are administered to a subject intraarterially, intravenously, intraperitoneally, directly into a tissue, or directly into a tumor;

administering the drug delivery solution to a subject; and

detecting said microcapsules at a target site by radiography, prior to heating the internal component;

exposing the microcapsule to an energy source, effective to heat the internal component and to melt at least a portion of the polymer outer membrane and to release the drug.

83-84. (Cancelled)

85. (Currently Amended) ~~A microcapsule comprised of~~ A method of controlling the release of two to four immiscible liquid phases comprising the steps of:

providing one or more microcapsules wherein the one or more microcapsules comprise:

the two to four ~~internal,~~ immiscible liquid phases;

a flexible polymer outer membrane encapsulating the liquid phases, the polymer outer membrane having a melting temperature;

an energy absorbing trigger particle in ~~an internal~~ liquid phase in contact with the polymer outer membrane[[,]] ; and

a drug or drug precursor, in ~~an internal~~ liquid phase not in contact with the polymer outer membrane[[,]] ;

delivering the one or more microcapsules in tissue; and

applying radiofrequency, microwave, or ultrasound energy to the one or more microcapsules such that at least one of the one or more energy absorbing trigger particles in at least one of the one or more microcapsules increases in temperature by absorbing the energy thereby melting the respective polymer outer membrane of the at least one of the one or more microcapsules and thereby releasing the encapsulated one or more immiscible liquids;

wherein the energy absorbing trigger particle sediments in the ~~internal~~ liquid phase in contact with the polymer outer membrane,

wherein the energy absorbing trigger particle is in contact with the polymer outer membrane, and

wherein the energy absorbing trigger particle has a higher specific absorption rate for ~~magnetic,~~ the radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer outer membrane~~, and~~

~~wherein the temperature of the energy absorbing trigger particle is increased by absorbing the energy to melt at least a portion of the polymer outer membrane~~.

86. (Withdrawn) A microcapsule consisting of:

two to four internal, immiscible liquid phases;

a flexible polymer outer membrane encapsulating the liquid phases, the polymer outer membrane having a melting temperature; and

an energy absorbing trigger particle selected from the group consisting of amorphous carbon, graphite, and aluminum powder, in a second internal liquid phase;

a drug precursor in a first internal liquid phase; and

an activator of said drug precursor in a second internal liquid phase immiscible with the first internal liquid phase,

wherein the second internal liquid phases is in contact with the outer membrane,

wherein the energy absorbing trigger particle sediment in the second internal liquid phase in contact with the polymer outer membrane,

wherein the energy absorbing trigger particle is in contact with the polymer outer membrane,

wherein said energy absorbing trigger particle has a higher specific absorption rate for magnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer outer membrane, and

wherein the temperature of said energy absorbing trigger particle is increased by absorbing said energy to melt at least a portion of the polymer outer membrane.

87. (Cancelled)

88. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of two to four internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and an energy absorbing component selected from the group consisting of amorphous carbon, graphite, aluminum powder, acetylene black, sodium amyl alcohol, sorbitan monoleate, 2% sorbitan monooleate/20 moles ethylene oxide, and paraffin oil, in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the energy absorbing component and to melt at least a portion of the polymer outer membrane and to release the drug.

89. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of two to four internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and an energy absorbing component in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component is a magnetic particle and the energy is a magnetic field, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases, wherein the microcapsules contain a drug precursor in a first internal liquid phase and an activator of the drug precursor in a second internal liquid phase immiscible with the first internal liquid phase;

exposing the microcapsules to an energy source effective to mix the immiscible internal liquid phases and increase the kinetics of activation of the drug precursor prior to heating the magnetic particles;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the energy absorbing component and to melt at least a portion of the polymer outer membrane and to release the drug.

90. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of two to four internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and an energy absorbing component in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component is a magnetic particle and the energy is a magnetic field, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the energy absorbing component and to melt at least a portion of the polymer outer membrane and to release the drug.

91. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of two to four internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and an energy absorbing component in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component consists of a spheroid within the microcapsule, and wherein the energy is ultrasound, wherein the energy absorbing component

has a higher specific absorption rate for ultrasound energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal liquid phases;

administering the drug delivery solution to a subject; and

exposing the microcapsule to an energy source, effective to heat the energy absorbing component and to melt at least a portion of the polymer outer membrane and to release the drug.

92. (Withdrawn) A method of controlling the release of a drug consisting of:

providing a drug delivery solution consisting of microcapsules consisting of two to four internal, immiscible liquid phases enclosed within a polymer outer membrane having a melting temperature, and an energy absorbing component selected from the group consisting of amorphous carbon, graphite, aluminum powder, acetylene black, sodium amyl alcohol, sorbitan monoleate, 2% sorbitan monooleate/20 moles ethylene oxide, and paraffin oil, in an internal liquid phase in contact with the outer membrane, wherein the energy absorbing component has a higher specific absorption rate for electromagnetic, radiofrequency, microwave, or ultrasound energy than the specific absorption rate of the polymer membrane, and a drug contained in at least one of the internal phases, and wherein the microcapsules contain a radiocontrast medium;

wherein the microcapsules are administered to a subject intraarterially, intravenously, intraperitoneally, directly into a tissue, or directly into a tumor;

administering the drug delivery solution to a subject;

detecting said microcapsules at a target site by radiography, prior to heating the energy absorbing component; and

exposing the microcapsule to an energy source, effective to heat the energy absorbing component and to melt at least a portion of the polymer outer membrane and to release the drug.

93. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein all mixing between the ~~internal,~~ immiscible liquids ~~phases~~ is substantially limited.

94. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the ~~internal,~~ immiscible liquids ~~phases~~ comprise multi-lamellar phases.

95-96. (Cancelled)

97. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the one or more microcapsules is further ~~comprising~~ comprised of a drug or drug precursor in the one or more immiscible liquids ~~phase~~ in contact with the polymer outer membrane.

98. (Currently amended) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is an anti-cancer drug or anti-cancer drug precursor.

99. (Withdrawn) The ~~microcapsule~~ method of claim 98, wherein the anti-cancer drug is cis-platin, doxorubicin, daunorubicin, diaziquone, paclitaxel, aziridinylbenzoquinone, muramyltripeptide, 5-fluorouracil, cyclophosphamide, melphalan, dacarbazine, methotrexate, cytarabine, azaribine, mercaptopurine, thioguanine, vinblastine, vincristine, bleomycin, prednisone, ethinyl estradiol, diethylstilbestrol, tamoxifen, testosterone propionate, or fluoxymesterone.

100. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is an anesthetic.

101. (Withdrawn) The ~~microcapsule~~ method of claim 100, wherein the anesthetic is cocaine, procaine, or lidocaine.

102. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is a systemic antibiotic.

103. (Withdrawn) The ~~microcapsule~~ method of claim 102, wherein the antibiotic is a penicillin, vancomycin, a cephalosporin, erythromycin, ampicillin, amoxicillin, chloramphenicol, rifampicin, gentamicin, sulfanilamide, sulfadiazine, sulfamethoxazole, sulfisoxazole, sulfacetamide, para-aminobenzoic acid, streptomycin, or isoniazid.

104. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is a systemic antifungal.

105. (Withdrawn) The ~~microcapsule~~ method of claim 104, wherein the antifungal is nystatin, or amphotericin B, or griseofulvin.

106. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is a systemic antiviral.

107. (Withdrawn) The ~~microcapsule~~ method of claim 106, wherein the antiviral is idoxuridine, iododeoxuridine, riboviran, or amantidine.

108. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is an anti-parasitic.

109. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is an anti-inflammatory.

110. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is a hormone, a steroid, hydrocortisone, dexamethasone, a systemic quinolone, an aminoglycoside, an antidote, an anti-cholinesterase, a metal poisoning antidote, a cytotoxic agent, an immunomodulator, a cytokine, an interleukin, an alpha-antitrypsin, a bone metabolism regulator, a hypercalcemic agent, a cardiovascular agent, a beta blocker, a cerebral vasodilator, a cerebral metabolic enhancer, a colony stimulating factor, a granulocyte-colony stimulating factor, a granulocyte macrophage-colony stimulating factor, a vasopressor, a local diabetic agent, a CT scan enhancer, an angiocardiography agent, an adenosine deaminase deficiency agent, a gonadotropin inhibitor, an adrenal cortical steroid inhibitor, a gonadotropin releasing hormone stimulant, a urofollitropin, a muscle relaxant, a neuromuscular blocking agent, a prostaglandin analog, a prostaglandin, a prostaglandin inhibitor, a respiratory therapy agent, an anticholinergic, a beta andrenergic stimulator, a metoclopramide, tetrahydrocannabinol or a sympathomimetic.

111. (Withdrawn) The ~~microcapsule~~ method of claim 97, wherein the drug or drug precursor is a thrombolytic agent.

112. (Withdrawn) The ~~microcapsule~~ method of claim 111, wherein the thrombolytic agent is urokinase (uPA), tissue plasminogen activator (tPA) or streptokinase.

113. (Currently amended) The ~~microcapsule~~ method of claim 1, wherein the ~~plurality of internal,~~ immiscible liquids ~~phases is~~ are comprised of two to four ~~internal,~~ immiscible liquids ~~phases~~ and the one or more microcapsules are further ~~comprising~~ comprised of:

a drug precursor in a first ~~internal~~ liquid ~~phase~~; and

an activator of the drug precursor in a second ~~internal~~ liquid ~~phase~~ immiscible with the first ~~internal~~ liquid ~~phase~~,

wherein the ~~internal~~ at least one of the one or more liquids ~~phase~~ in contact with the polymer outer membrane is the second ~~internal~~ liquid ~~phase~~.

114. (Currently amended) The ~~microcapsule~~ method of claim 73, wherein the flexible polymer membrane comprises polymer alcohol and the one or more energy absorbing trigger particles comprises aluminum powder.

115. (Currently amended) The ~~microcapsule~~ method of claim 74, wherein the flexible polymer membrane comprises polymer alcohol and the one or more energy absorbing trigger particles comprises aluminum powder.

116. (Currently amended) The ~~microcapsule~~ method of claim 85, wherein the flexible polymer membrane comprises polymer alcohol and the one or more energy absorbing trigger particles comprises aluminum powder.